

DEGREE PROGRAM TITLE: AIRWAY SCIENCE

**AFSC(S): 1C1X1, Air Traffic Control
1C2X1, Combat Control**

PROGRAM GOAL: The goal of the **CCAF Airway Science Degree Program** is to prepare graduates for challenging careers within the military and aviation industry as skilled air traffic control (ATC) specialists meeting present and future needs of the national air space system for air traffic control. Graduates will gain a comprehensive knowledge of control towers, radar approach control facilities, flight service stations, communications, navigation procedures and competently perform air traffic control with enroute and terminal air traffic. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate ATC fundamentals to include basic theory of flight, terminology, facilities responsibilities, aircraft performance characteristics and separation procedures.
2. Utilize aeronautical charts, instrument approach procedures, visual approach procedures and terminal procedures.
3. Perform nonradar and radar procedures to separate and control aircraft along established airways and routes between and over terminal areas.
4. Issue ATC clearances, instructions and advisories to air traffic operating under instrument and visual flight rules (VFR).
5. Demonstrate knowledge of VFR terminology, identification methods, separation, control instructions and aviation regulations pertaining to aircraft engaged in VFR flight.
6. Apply principles of approach control radar operations and equipment to include use of terminology, identification procedures separation and control instructions of radar-controlled aircraft.
7. Demonstrate a basic knowledge of weather principles, interpretation of reports and forecasts as applied to flight.